



M9 SORTER

WITH AUTOMATIC TENSIONING

USER GUIDE v2.1



INTRODUCTION.....	2
DISCLAIMER.....	2
SAFETY INSTRUCTIONS.....	3
GENERAL SAFETY PRECAUTIONS.....	4
SERVICES & REPAIRS.....	6
WARRANTY.....	7
INITIAL SETUP.....	8
ASSEMBLY & INSPECTION.....	8
REMOVE AND INSTALL BELTS AND ROLLERS.....	10
INITIAL SETUP.....	13
GET TO KNOW YOUR MOBIUS M9 SORTER.....	13
WHAT'S IN THE BOX.....	15
GENERAL OPERATION.....	16
CLEANING & MAINTENANCE.....	21
CLEANING MODE.....	21
CLEANING.....	21
PREVENTATIVE MAINTENANCE.....	22
SPECIFICATIONS.....	23

INTRODUCTION

This User Guide is a comprehensive manual covering the operation and maintenance of the M9 Sorter machine as of the date of publication. ETEROS TECHNOLOGIES reserves the right to make updates to the machine from time to time. In the event of an update, this User Guide will remain appropriate for the safe operation and maintenance of your unit. This User Guide, as well as any documentation supplied by component manufacturers, are to be considered the information package associated with this device. Every operator must read and understand the User Guide. The manual should be located within easy access for periodic review.

DISCLAIMER

ETEROS TECHNOLOGIES recognizes that the M9 Sorter is a purpose-built machine for processing cannabis by licensed producers. Please check all municipal, provincial/state, and federal laws and regulations before using the M9 Sorter. ETEROS TECHNOLOGIES does not promote or condone the use of processing equipment in any way that may be deemed illegal.

ETEROS TECHNOLOGIES recognizes that our equipment can be used for processing herbs, hops, flowers and many other products. It is not the responsibility of ETEROS TECHNOLOGIES to confirm alternative applications for our equipment.

SAFETY INSTRUCTIONS

To ensure operator safety while in use, this device includes decaling, guarding, and other safety features. Operators are encouraged to use caution and best judgment when using equipment. Equipment should be serviced when required.

To avoid possible damage to the machine and risk of injury to the operator, consult with an ETEROS TECHNOLOGIES representative to answer any questions.

All operators must read and understand this User Guide and be trained in safe operation and use of the M9 SORTER. We recommend the owner of this equipment develop a standard operating procedure specific to each worksite to address any local hazards or other conditions not outlined in this User Guide. The M9 SORTER must be inspected regularly for damage, component failure, and wear. Results of inspection activity should be documented.

ETEROS TECHNOLOGIES makes every effort to ensure the M9 SORTER is compliant with all current safety standards. It is the responsibility of the owner to ensure all municipal, provincial, state, county, territorial, and federal codes, regulations and standards have been met in each working location.

Do not lend or rent your machine without providing the User Guide. A first-time operator should receive practical instruction before using the machine.

This machine is not to be used for any purpose other than those expressly stated in the User Guide, advertising literature, or other ETEROS TECHNOLOGIES written material pertaining to the M9 SORTER.

GENERAL SAFETY PRECAUTIONS

KNOW THE SAFETY INFORMATION

Read and become familiar with the entire User Guide. Learn the equipment applications, limitations, and possible hazards.

KEEP GUARDS AND SHIELDS IN PLACE

Keep all guarding in place and in working order to protect both the device and the operator.

WORK IN A SAFE ENVIRONMENT

Do not use equipment in a dangerous environment or damp/wet locations. Never expose the control panel directly to rain or water. Keep the work area well-illuminated.

WORK AWAY FROM FLAMMABLE LIQUIDS OR GASES

Do not use the device in the presence of flammable liquids or gases.

KEEP THE WORK AREA CLEAN

Cluttered areas and workspaces invite accidents.

TRAINED OPERATORS ONLY

Keep children and bystanders away from the device. visitors should be kept at a safe distance from the work area.

DON'T FORCE THE EQUIPMENT

It will operate optimally and safely at the rate for which it was designed.

USE THE RIGHT TOOL

Don't force the device to do a job for which it was not designed.

WEAR PROPER APPAREL

Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that may get caught in moving parts. Non-slip footwear is recommended. Wear a protective hair covering to contain long hair.

ALWAYS OPERATE DEVICE IN A WELL-VENTILATED AREA

Dust generated from certain materials can be a health hazard. Use a dust collection system whenever possible.

WEAR A FACE MASK OR DUST MASK

This device may produce dust or operate near other dust-producing machines. If dust extraction is not considered, a dust mask must be worn.

POWER DOWN AND DISCONNECT

Power down and disconnect equipment before servicing and when changing any accessories, consumables, or other components.

CHECK FOR DAMAGED PARTS BEFORE OPERATION

The equipment should be inspected prior to use to ensure proper operation in performing its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. Any damaged part including guards should be properly repaired or replaced.

ALWAYS WEAR EYE PROTECTION

Safety goggles can protect your eyes from fast-moving debris.

ALWAYS WEAR EAR PROTECTION

Wear ear muffs or earplugs when operating loud machinery.

SERVICES & REPAIRS

Repairs must be carried out in consultation with Eteros Technologies' Technical Support department. Only original equipment manufacturer (OEM) Mobius parts are to be used for repairs.

Should the need arise, please notify us:

ETEROS TECHNOLOGIES
26 Industrial Ave. Carleton Place
Ontario, Canada K7C 3T2

www.eteros.com

1.866.874.6244

Improper interfacing, improper repair, or unauthorized modification could result in void warranty claims.

WARRANTY

Thank you for purchasing Mobius M9 equipment from Eteros Technologies Inc.

The Mobius M9 Sorter is covered by our manufacturer's warranty as follows:

- No warranty on consumable parts, including sorter belts and roller assemblies;
- Warranty coverage for one (1) year or 1,000 operating hours, whichever occurs first, on motors, electrical components, and remainder of machine components.

The warranty period begins on the date the equipment is received by the customer. Any damage that occurs during shipping will be the responsibility of Eteros Technologies.

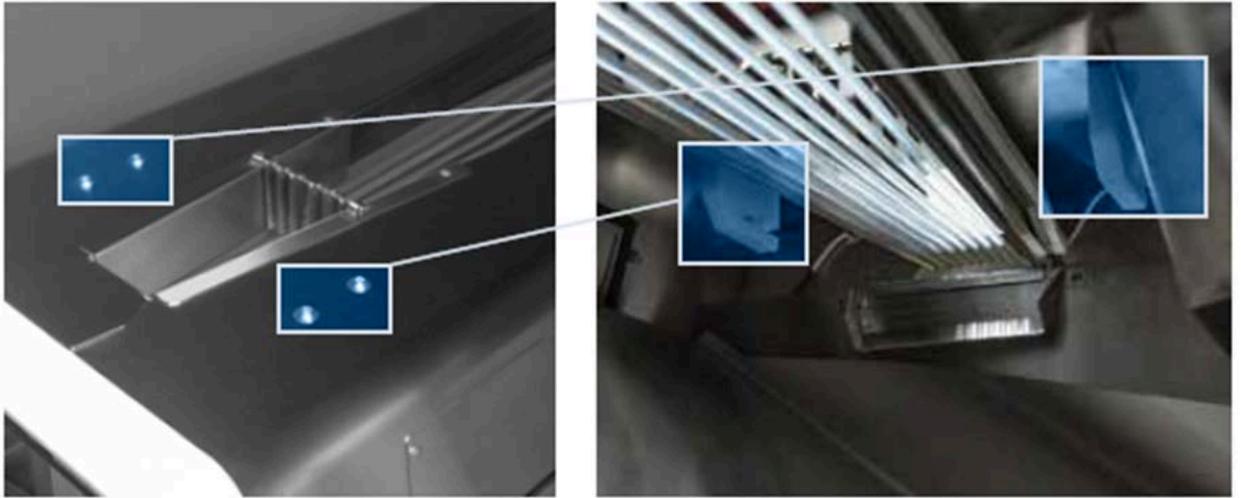
The above terms are valid if Mobius equipment is used and maintained as directed. If the equipment is modified in any way, all terms of this warranty are void. This warranty does not apply to cosmetic damage, such as scratches or general wear and tear.

Should you experience a technical problem with your equipment, please contact Eteros Technologies at the email or phone number outlined in the [Services & Repairs](#) section.

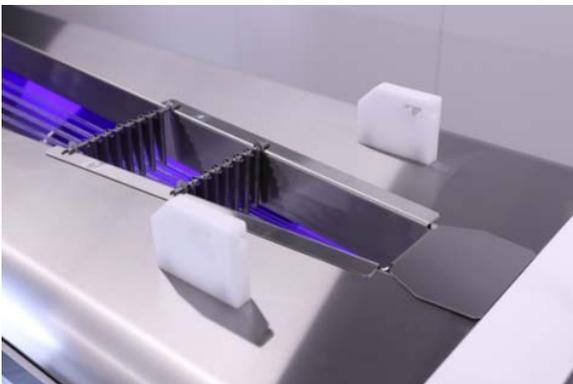
INITIAL SETUP

ASSEMBLY & INSPECTION

1. Inspect the crate and crate contents to ensure no damage occurred during shipping.
2. Carefully remove M9 Sorter from crate.



3. The Adjustment Blocks are fastened to the interior of the body during shipping. To install, they will need to be removed using a 5/16 hex bit or Allen Key to loosen off the bolts on the exterior of the body. Place the Adjustment blocks over their corresponding holes on the exterior of the body and fasten them from the interior of the body using the same bolts and 5/16 hex bit or Allen Key. Insert hopper Pins into Adjustment Blocks to lock hopper in position.

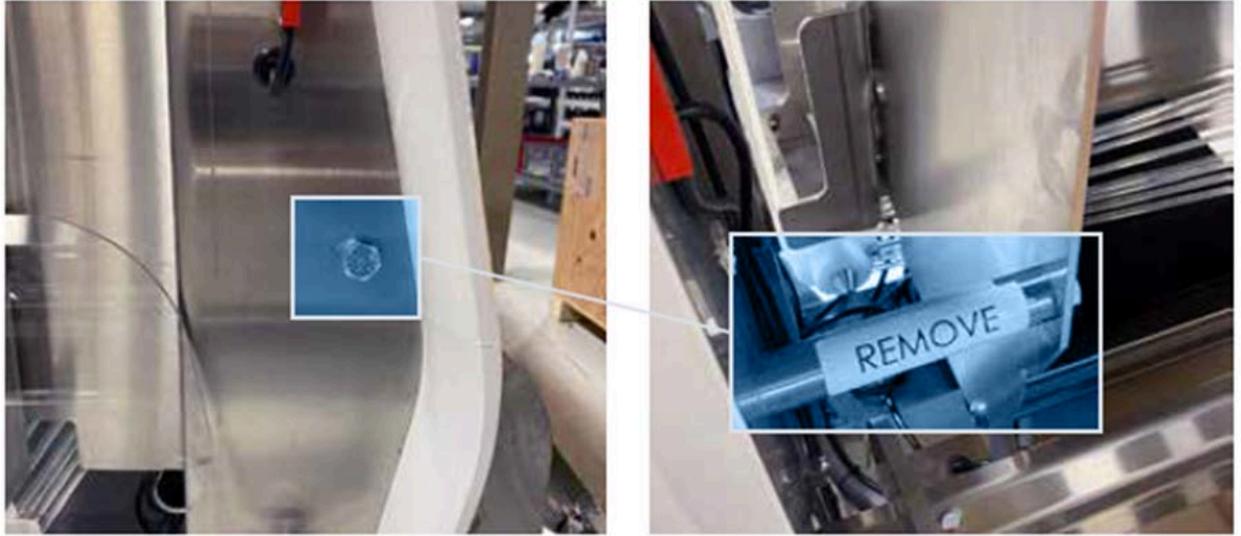


4. Attach Shelf on the outfeed side of the Sorter by inserting holes on shelf onto pins and pushing down on shelf to wedge in place.
5. Attach Slide-Outs by hooking them onto the edge of the Slide Out Table. This will allow Slide-Outs to be adjustable.
6. Once initial assembly is complete, inspect the M9 Sorter to confirm that it is ready to operate:
 - I. Confirm the power cord is in good condition.
 - II. Ensure the sorter belts are placed properly within pulley grooves.
 - III. Ensure rear tailgate is properly closed.
 - IV. Ensure casters are in the locked position.
 - V. Attach Slide-Outs to desired distance for sorting into totes.
 - VI. Ensure polycarbonate end covers are in place and safety sensors activated.
 - VII. Place a tote under Slide-Outs and on the outfeed shelf to collect sorted material.

REMOVE SUPPORT PLATE

To make sure the machine does not flex during shipping, a support rod is installed at the factory that must be removed before use:

1. Inspect the crate and crate contents to ensure no damage occurred during shipping.
2. Carefully remove M9 Sorter from crate.
3. The support will need to be removed on either end of the Sorter by removing the hex bolts.



4. If the supports aren't removed, the operator will not be able to disassemble the belts off for cleaning.

REMOVE AND INSTALL BELTS AND ROLLERS

1. Unplug the machine.
2. Remove the overflow shelf and plastic side panels.



3. Use the toggle switch on the touchscreen to set the belts to the “slack” position.
4. Move to the back side of the Sorter and open the tailgate by releasing the two compression latches.
5. Working through the openings on the two ends and tailgate, pull a belt away from the rollers and out of the machine. As necessary, proceed with removing some or all of the belts in the same manner. Note: Removing the rollers can be done with or without the belts in place. As long as there isn't any tension on the belts, it's easy to work around them.



6. Both rollers on the outfeed side and the top roller on the infeed side can be removed by simply sliding them out of their cradling brackets.
7. The bottom (drive) roller on the infeed side is secured in place with a locating pin. Pull up on the pin to release the roller and pull it out of its cradling bracket.



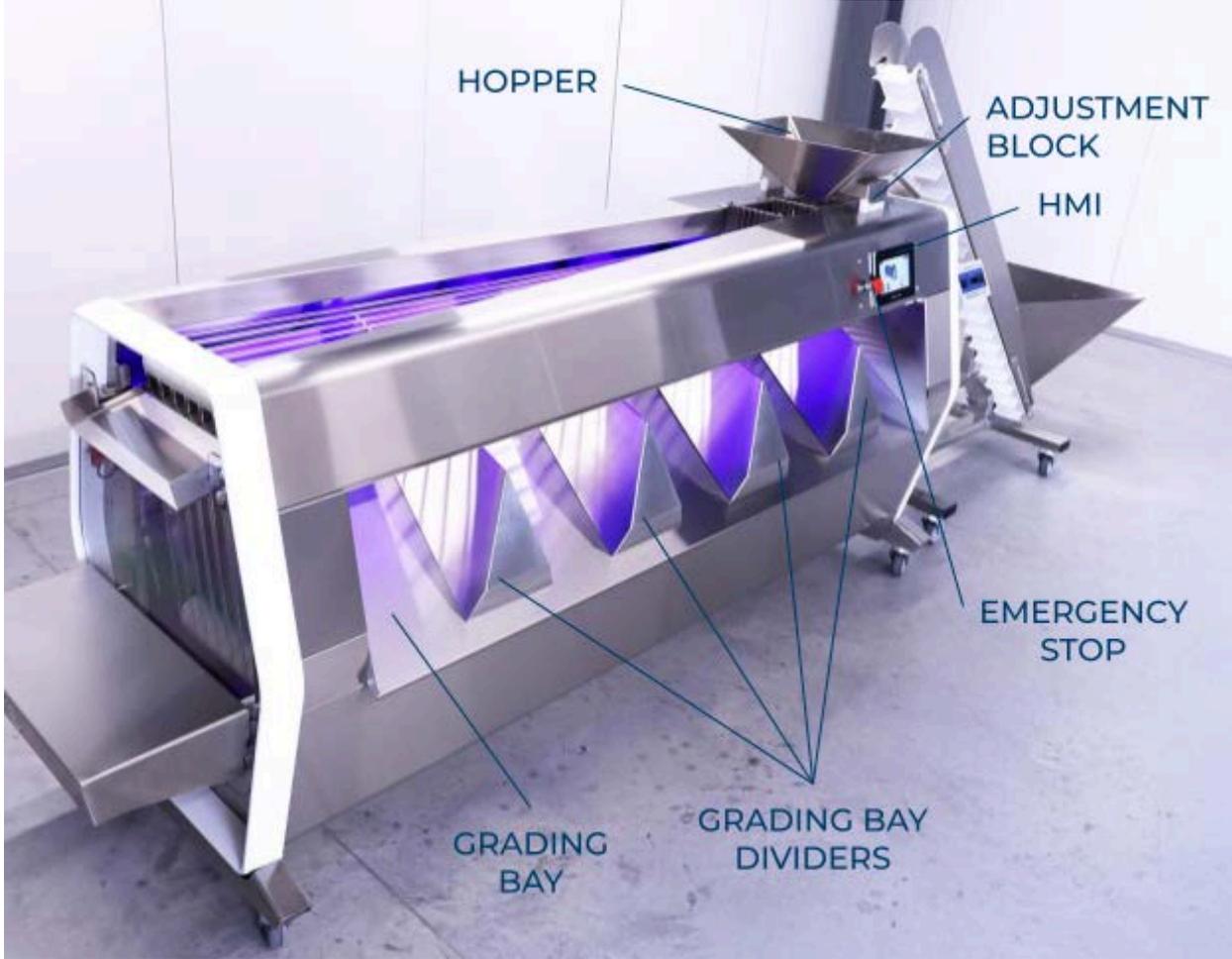
8. To reinstall the rollers and belts, simply reverse the process: Start with the belt-tensioning assembly set to the highest position so that you have maximum slack to work with. Reposition the four rollers, ensuring the flat part

of each shaft sits flush against the bracket and the locating pin on the drive roller is secured in its place.

9. To reinstall a belt, start by working it onto each of the four rollers, aligning it into the same channel on each roller.
10. Once all of the rollers and belts are in place, press the toggle switch on the touchscreen to set the belts to the “tension” position.
11. Close up the tailgate, and replace the side panels and overflow shelf.

INITIAL SETUP

GET TO KNOW YOUR MOBIUS M9 SORTER





WHAT'S IN THE BOX

Your M9 Arrives With The Following Components:

Your Mobius M9 Sorter comes lightly assembled, tested, and ready for operation. When unpacking the device, please ensure the following items are included:

1. M9 Sorter Machine
2. Shelf
3. Slide-Outs
4. Hopper

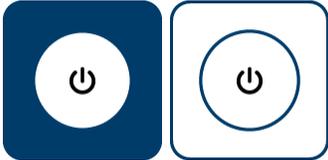
GENERAL OPERATION

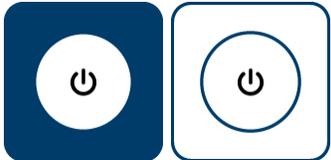
CONTROL PANEL OVERVIEW

E-STOP - Emergency stop button - stops all moving parts on the device.

Press the e-stop button at any time to stop all moving parts and turn off the machine and any connected equipment.



<p>BOTTOM LEFT POWER BUTTON</p>	 <p>OFF / ON</p>	<p> toggling this button will energize the motor and allow the belts to start turning. The lights on the machine will turn white to indicate that it is live and powered. Press the button again to turn the motor off and stop the belts from turning. The lights will turn blue to indicate the machine is in a “ready” state.</p>
<p>SPEED CONTROL</p>	 <p>UP / DOWN</p>	<p>Up Arrow will increase the speed of the belts - Down Arrow will decrease the speed of the belts. Speed adjustment goes from 0 to 11.</p>
<p>BELT CONTROL</p>		<p>Indicates the status of the belts: either “slack” or “tension”. This switch can be toggled to automatically tension or loosen the belts.</p>

<p>CONVEYOR ENABLE</p>	 <p>DISABLED / ENABLED</p>	<p>Enabling this button unhides the Autofeed conveyor controls on the touchscreen and allows for the conveyor to be started and stopped from the M9.</p>
<p>AUTO MODE</p>	 <p>OFF / ON</p>	<p>Enabling “Auto Mode” will hide the power button for the Autofeed conveyor and sync the on/off status with the M9 so that both the conveyor and M9 can be started and stopped using the main power button.</p>
<p>BOTTOM RIGHT POWER BUTTON</p>	 <p>OFF / ON</p>	<p>If the Autofeed conveyor is not set to Auto Mode, it can be manually turned on or off using the power button in the bottom right corner of the touchscreen.</p>
<p>ADVANCED SCREEN</p>		<p>Pressing this button will display the “Advanced” screen which displays status information about the sensors, motor, controller, and motor drive.</p>
<p>HOME SCREEN</p>		<p>When on the Advanced screen, press the Home button to get back to the main control screen.</p>
<p>CLEANING MODE</p>		<p>Toggle the M9 Sorter into “Cleaning Mode” which will allow the motor to energize and belts to turn when the guarding is removed for easier cleaning. The speed is limited to 1/11 in this mode. This button is located on the Advanced screen.</p>
<p>CONFIRM AND CANCEL</p>	 <p>CONFIRM / CANCEL</p>	<p>After toggling the Belt Control switch, press the green checkmark to confirm that you would like the actuator to begin</p>

		moving, or press the red X to cancel and go back to the previous screen.
--	--	--

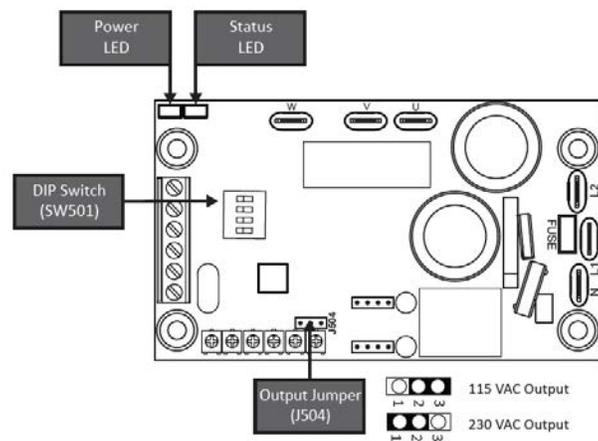
MACHINE START-UP SEQUENCE

1. Ensure rear door of Sorter is properly closed.
2. Check and make sure Polycarbonate covers are properly in place on inlet and outlet sides of the machine.
3. Place totes under Slide-Outs to collect material.
4. Place tote on outlet shelf to capture larger sized material.
5. Plug the power cord into a 110V or 240V outlet depending on which version of the machine you are using.
6. Disengage the E-Stop by twisting counter-clockwise.
7. Confirm the Belt Control switch on the touchscreen is in the “Tension” position (highlighted white). If not, toggle the switch to tension the belts.
8. Confirm that the machine is not in Cleaning Mode. If it is, an alert will be displayed on the Home screen. Cleaning Mode can be toggled on or off from the Advanced Screen.
9. Press the bottom left power button on the touchscreen which will start the motor. When active, the button will be illuminated in white.
10. Press the up arrow on the touchscreen to increase the speed of the belts.
11. Adjust Hopper to allow for flow of material onto the belts.
12. Adjust Slide-Outs to desired sizing.
13. When totes are full, press the bottom left power button on the touchscreen to stop belts from turning during tote changeover.

AUTOFEED CONVEYOR INTERLOCK

The M9 Sorter can optionally be used with a purpose built Autofeed conveyor to automatically feed material into the machine from an upstream process. The conveyor can be plugged into the Sorter and controlled directly from the touchscreen for maximum integration. To configure your Autofeed conveyor to receive commands from the Sorter:

1. Ensure the Autofeed conveyor is off and disconnected from any power source.
2. Ensure the M9 Sorter is off and disconnected from any power source.
3. Use a Phillips screwdriver to remove four screws from the corners of the electrical cabinet on the conveyor. The screws are captive and do not have to be removed all the way from the lid.
4. With the screws loosened, gently remove the lid from the cabinet. The lid will have wires attached, so be careful not to yank or pull it too far away.
5. Inside the cabinet, locate the DIP switch on the green circuit board.



6. Set switch 1 (top switch) on the DIP switch to OFF (by default it is set to ON). This will enable the conveyor to receive start and stop commands from the Sorter.
7. Re-install the lid on to the cabinet using the four Phillips screws. Take care not to over tighten the screws.
8. Plug the power cord of the conveyor into the Sorter by routing it through the circular hole on the inlet plate of the Sorter and plugging it into the AC receptacle on the side of the electrical cabinet. You will need to open the rear door on the Sorter to route the conveyor cord inside the machine.
9. Remove the standard hopper and attach the Autofeed hopper to the Sorter.
10. Close the rear door on the Sorter and plug the sorter into a 120 V or 240 V outlet.

11. When the Sorter starts up, press the Enable Conveyor button on the touchscreen to unhide the conveyor controls.
12. By default, the Autofeed can be toggled on or off using the power toggle switch in the bottom right corner of the touchscreen. The conveyor's speed is still set manually by the knob on the electrical cabinet.
13. To automatically start and stop the Autofeed with the M9, it can be toggled into Auto Mode.
14. Pressing the Conveyor Disable button will turn the conveyor off and hide all conveyor controls.

CLEANING & MAINTENANCE

CLEANING MODE

The M9 Sorter can be put into a mode that makes cleaning easier by enabling the motor to operate with the guarding removed. This enables for the pulleys and belts to be more thoroughly cleaned without removing them completely. Note that when the machine is in cleaning mode, the speed is limited to 1/11. To enable Cleaning Mode on your M9 Sorter:

1. Navigate to the Advanced screen.
2. Toggle the Cleaning Mode switch so that “CLEAN” is highlighted in white.
3. Navigate back to the Home screen, and notice that there is now an alert indicating that Cleaning Mode is active. The polycarbonate covers can now be removed and the rear door can be opened without triggering alarm popups on the touchscreen.
4. Press the power button in the bottom left corner to begin a slow rotation of the pulleys and belts.
5. To exit Cleaning Mode, reinstall the polycarbonate covers and close the rear door and toggle the machine back into “Sort” mode using the toggle switch on the Advanced screen.

CLEANING

1. If using an Autofeed conveyor with the Sorter, press the Disable Conveyor button and disconnect the Autofeed from the AC receptacle on the cabinet.
2. From the Advanced screen, set the machine to Cleaning Mode.
3. From the Home screen, press the bottom left power button to energize the motor and begin a slow rotation of the belts and pulleys.
4. Remove both end plate polycarbonate covers.
5. Open the rear door.
6. Using warm or hot water (maximum 55°C/130°F), rinse down the interior of the machine, pulleys, belts, Slide-Outs, etc. The belt and pulley assemblies can also be removed for a more thorough cleaning process.

7. Be careful to avoid any moisture on the touchscreen, motor or electrical cabinet. Spritz body (interior and exterior) and any removed parts with degreaser, allowing time for the degreaser to sit on surfaces and penetrate any soils. Use a cloth to remove any stubborn soils. Rinse thoroughly (pressure washer ok - avoid the touchscreen, motor and electrical cabinet) with warm or hot water (maximum 55°C/130°F) and allow to dry. Apply a sanitizer if necessary as part of your sanitation SOP.
8. Reinstall the pulley assemblies (if removed), belts (if removed), Slide-Outs (if removed), polycarbonate covers and close the rear door.
9. Re-connect the Autofeed to the receptacle on the electrical cabinet and press the conveyor enable button on the touchscreen to re-enable the conveyor controls.
10. Disable Cleaning Mode from the Advanced screen to remove the speed limit on the motor and resume normal operation.

PREVENTATIVE MAINTENANCE

1. Eteros recommends that the pulleys and belts be cleaned off regularly to avoid buildup of resin on these parts. This cleaning process should take place at the end of each session or more frequently, depending on the operating environment and condition of material being processed.
2. Eteros recommends cleaning the inside of the machine on a regular basis.
3. Eteros recommends de-tensioning the belts when the machine is not in use. This will help extend their service life by avoiding any unnecessary stretch or strain of the belts.

SPECIFICATIONS

WET/DRY CAPABLE	YES
CONSTRUCTION	Anodized Aluminum & 304 Stainless Steel
SPEED ADJUSTMENT	0-11
BELT DIAMETER	5/16"
BELT SPACING	1/16" to 1-11/16"
NUMBER OF BELTS	9
BELT DRIVE MOTOR	1/10 HP
HMI CONTROL	YES
TOOL-LESS DISASSEMBLY	YES
FITS THROUGH A 32" DOOR	YES
DIMENSIONS	30" W x 88" L x 46.5" H
WEIGHT	610 LBS
POWER REQUIREMENT	120 V, 1.5 A (North America) 240 V, 0.7 A (international)